

31.6.2 – Procedure for Conducting Locomotive Air Brake Test

Ensure locomotive is properly secured.

From the ground, observe that the locomotive brakes apply and release during this procedure:

1. With the independent and automatic brake valve handles in RELEASE, apply the independent brake.
2. After observing that the brakes apply on each locomotive, release the independent brakes.
3. When the brakes are released on all locomotives, apply the automatic brakes by making a 10-psi brake pipe reduction.
4. After the brakes apply on all locomotives, actuate and observe that the brakes release.
5. Reduce brake pipe pressure an additional 10 psi to reapply the brakes.
6. Determine that all brakes apply on all locomotives.
7. Cut out the automatic brake.
8. Observe gauges and verify that equalizing reservoir indicates no leakage and that brake pipe leakage does not exceed 5 psi per minute.
9. Cut in automatic brake and move automatic brake valve handle to RELEASE position.
10. Determine that all brakes release.

31.19.1 – Cut Out Operating Controls 31.19.2 – Restore Operating Controls

To cut out operating controls, do the following:

1. Apply sufficient hand brakes to hold locomotive consist.
2. Place the throttle in IDLE.
3. Place the reverse lever in NEUTRAL and remove the handle.
4. Fully apply the independent brake.
5. Cut out the independent brake.
6. Place the independent brake valve handle in RELEASE.
7. Make a 20-psi brake pipe reduction.
8. Cut out the automatic brake.
9. Place the automatic brake valve handle in HANDLE OFF/CONTINUOUS SERVICE.
10. Place the generator field switch in the OFF position.
11. Disarm 2-way EOT, if equipped.

To restore operating controls, position equipment on the control stand as follows:

1. Replace the reverse lever.
2. Place the independent brake valve handle in FULL APPLICATION.
3. Cut in the independent brake.
4. Place the automatic brake valve handle in RELEASE.
5. Cut in the automatic brake.
6. Place the generator field switch in the ON position.
7. Place the engine run switch in the ON position.
8. Place the control/fuel pump switch in the ON position.
9. Conduct the test as specified in Rule 31.6 (Locomotive Air Brake Test).

TRAIN & LOCOMOTIVE SECUREMENT RULES

7.6 Securing Cars or Engines

Do not depend on air brakes to hold a train, engine, or cars in place when left unattended. Apply a sufficient number of hand brakes to prevent movement. If hand brakes are not adequate, block the wheels.

When the engine is coupled to a train or cars standing on a grade, do not release the hand brakes until the air brake system is fully charged.

When cars are moved from any track, apply enough hand brakes to prevent any remaining cars from moving.

32.1.1 – Securing an Unattended Train or Portion of Train with Locomotive Attached

To secure a train or a portion of a train with the lead locomotive consist attached, perform the steps below:

1. Secure equipment against undesired movement as outlined in Rule 32.1 (Securing Equipment Against Undesired Movement).
2. Secure the lead locomotive consist and apply the air brakes as outlined in Rule 32.1.3 (Unattended Locomotives).

32.1.2 – Securing an Unattended Train Before Detaching Locomotive

When any part of a train is left standing do not depend on the air brake system to secure the cars.

When detaching locomotives or locomotives and cars:

1. Secure equipment against undesired movement as outlined in Rule 32.1 (Securing Equipment Against Undesired Movement).
2. Release air brakes to ensure hand brakes will prevent movement.
3. Make a 20-psi brake pipe reduction.
4. Close angle cock on rear locomotive or last car to be detached from portion left standing. Leave angle cock open on portion left standing.
5. Allow brakes on any standing portion to apply in emergency. When available, use the end-of-train telemetry device to make sure that brake pipe pressure drops to 0 psi.
6. Do not bottle air or maintain air pressure in the brake pipe when locomotives are detached or yard air is uncoupled. However, if cars will not be left unattended and the locomotive will immediately couple to the cars at the opposite end; after the brake pipe pressure has completely exhausted, wait 1 minute, then the angle cock on the standing portion of the train may be closed to allow a locomotive to switch the cars from the opposite end.

Exception: When separating a train in temperatures below 25 degrees F and the train is on a light grade, (see Glossary) follow the steps in Rule 30.17 (Inbound Train Inspection) to prevent vent valves from sticking open.

32.1 - Securing Equipment Against Undesired Movement

Crew members are responsible for securing standing equipment with hand brakes to prevent undesired movement. The air brake system must not be depended upon to prevent an undesired movement.

When leaving cars unattended use the following steps to determine the number of hand brakes to be applied:

- On a descending grade with slack bunched, apply the hand brakes on the low end of the cut of cars. To verify the hand brake(s) applied will prevent movement, release all air brakes. (See guideline below when unable to verify sufficient hand brakes applied).
- On an ascending grade with slack stretched, apply the hand brakes on the high end of the cut of cars. To verify the hand brake(s) applied will prevent movement, release all air brakes. (See guideline below when unable to verify sufficient hand brakes applied).
- At other locations where the crew has determined that equipment will not move with all brakes released, after slack is adjusted, apply enough hand brakes to hold the equipment. Sufficient hand brakes must be applied to prevent undesired movement of equipment from outside forces or when coupled to by other equipment.

Note: Retaining valves on the cars to be left must be in the EXHAUST position.

The number of hand brakes to be applied depends on:

- Grade.
- Number of loaded and empty cars, and type of car.

Note: *Solid drawbar articulated cars and heavy duty flatcar, 8 axles or more, and most 5-unit articulated intermodal cars have two or more hand brakes. When applying hand brakes on one of these cars, all of the hand brakes must be applied. Most of the intermodal cars having two hand brakes have the hand brake painted orange and/or are stenciled "SECOND HAND BRAKE AT OPPOSITE END".*

- Weather conditions (wind and temperature).

The following guideline is for the minimum number of hand brakes required if unable to verify that sufficient hand brakes have been applied by release of the air brakes (i.e. only rear of train being left unattended). Additional special instructions may be in effect on some subdivisions.

Guideline Chart When Unable to Verify Required Hand Brakes by Release of Air Brake (Go to rule book (Rule 32.1) to see the 'Guideline Chart' for minimum number of hand brakes required).

Terminal Areas:

Terminals, classification bowl tracks, car and locomotive facility service and repair tracks may have their own minimum number of hand brakes to be applied at each location.

Check Superintendent's Bulletins for specific requirements for your location.

32.1.3 – Unattended Locomotive(s)

When securing locomotives:

1. Place the throttle in IDLE unless you are protecting the engine from freezing.
2. Place the transition handle (if equipped) in the OFF position.
3. Place the generator field switch or the circuit breaker on the control stand (if equipped) in the OFF position.
4. Remove the reverser handle from the reverser slot on the control stand and place it in the receptacle, if equipped. Do not remove the reverser handle if you need to increase the throttle position to prevent freezing.
5. On locomotives coupled to other equipment, apply hand brakes on all locomotives. Release air brakes to determine hand brakes will prevent Movement. However, hand brakes on remote control locomotives are not required when equipment remote control locomotive is coupled to is properly secured.
6. Make a 20-psi brake pipe reduction after allowing the brake system to charge.
7. Leave the automatic brake valve cut in.
8. Fully apply the independent brake.
9. Place engine control switch to ISOLATE on all locomotives.

Additional securement guidelines for unattended locomotives not coupled to other equipment:

10. Must not be left unattended on a main track.
11. When left unattended on auxiliary tracks must be protected by derail(s) or a facing point switch lined and locked to prevent movement to the main track.
12. Must have all hand brakes applied. Release locomotive brakes to determine hand brakes will prevent movement.

Exception: Distributed power remote locomotives, when on unattended trains, do not require hand brakes to be applied or engine control switch to be placed in ISOLATE when train is otherwise properly secured. Distributed power remote consists may be left standing with all hand brakes applied at any location, even on the main track, when in the process of making up a DP train. At mechanical facilities, when locomotives are protected by outbound derails on designated servicing tracks, apply a sufficient number of hand brakes to prevent undesired movement, but a minimum of one per locomotive consist.

Air Conditioning

To date, the FRA has refused to issue mandatory air conditioning regulations.

It continues to be our responsibility to report these defects to the carrier and to our "Safety First" website at:

www.bletsafetyfirst.org